DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

DOMINICAN REPUBLIC

INNOVATION LOAN

INSTITUTION BUILDING FOR THE INFORMATION SOCIETY

(DR-0149)

LOAN PROPOSAL

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ANNEXES

Annex I Logical framework Annex II Procurement plan

BASIC SOCIOECONOMIC DATA

The basic socioeconomic data for the **Dominican Republic** are available on the Internet at the following address:

 $\underline{http://www.iadb.org/RES/index.cfm?fuseaction=external links.country data}$

INFORMATION AVAILABLE IN THE RE2/RE2 TECHNICAL FILES

Preparation:

- Project Operating Regulations
- Executive order creating the CNSI and UDD.
- Inter-agency agreement between the INDOTEL and the Technical Secretariat to the President's Office
- Operations manual for managing a telecenter.
- Content development request: "Desarrolla tu Ide@ en la @ldea"
- Preliminary financing request
- Telecenter management business plan
- Training program for the telecenter management team
- Itemized budget and financial analysis of the project
- E-government initiatives
- The Dominican Enterprise Portal's (PEM) proposed content and services
- A profile of Dominican enterprise
- Dominican enterprise procedure.
- Model contract of a certification company
- Suggested technical criteria for selection of quality and digital certification companies that could benefit from the project
- Terms of reference for hiring a consulting firm to design business plans and provide training for the certification services
- Terms of reference for hiring a consulting firm to help design business plans and deliver the training services needed to operate the program to introduce seals of confidence and business excellence
- Model contract for participation in the seals of confidence program
- Criteria for selecting the university chosen to introduce the information technology law program
- Documentation for prequalification and selection of the consulting firm
- Annual work plan
- Presentation of the project on institution building for the information society

ABBREVIATIONS

ADD Dominican Digital Agenda

AVEs Virtual classrooms

CNSI Comité Nacional para la Sociedad de la Información [National Committee

for the information society]

CSO Civil society organization

EC Electronic commerce or e-commerce
EG Electronic government or e-government
GDR Government of the Dominican Republic
ICT Information and communications technology

INDOTEL Instituto Dominicano de las Telecomunicaciones [Dominican

Telecommunications Institute]

IS Information society

ITU International Telecommunications Union

LINCOS Little Intelligent Communities

PET Project execution team

SECYT Secretaría de Educación Superior, Ciencia, y Tecnología [Ministry of

Higher Education, Science, and Technology]

SEE Secretaría de Estado de Educación [Secretariat of State for Education]
SEIC Secretaría de Estado de Industria y Comercio [Secretary of State for

Industry and Commerce]

SMEs Small and medium-sized enterprises

SSI Subsecretaría de Sistemas de Información [Office of the Assistant

Secretary for Information Systems]

STP Secretariado Técnico de la Presidencia [Office of the Technical Secretary

of the Presidency

UDD Unidad Dominicana Digital [Dominican Digital Unit]



DOMINICAN REPUBLIC

IDB LOANS APPROVED AS OF SEPTEMBER 30, 2003

	US\$Thousand	Percent
TOTAL APPROVED	2,302,314	
DISBURSED	1,766,478	76.72 %
UNDISBURSED BALANCE	535,836	23.27 %
CANCELATIONS	562,449	24.42 %
PRINCIPAL COLLECTED	751,437	32.63 %
APPROVED BY FUND		
ORDINARY CAPITAL	1,505,652	65.39 %
FUND FOR SPECIAL OPERATIONS	710,209	30.84 %
OTHER FUNDS	86,453	3.75 %
OUSTANDING DEBT BALANCE	1,015,041	
ORDINARY CAPITAL	593,775	58.49 %
FUND FOR SPECIAL OPERATIONS	414,719	40.85 %
OTHER FUNDS	6,547	0.64 %
APPROVED BY SECTOR		
AGRICULTURE AND FISHERY	513,077	22.28 %
INDUSTRY, TOURISM, SCIENCE AND TECHNOLOGY	132,741	5.76 %
ENERGY	343,445	14.91 %
TRANSPORTATION AND COMMUNICATIONS	234,289	10.17 %
EDUCATION	253,479	11.00 %
HEALTH AND SANITATION	185,345	8.05 %
ENVIRONMENT	0	0.00 %
URBAN DEVELOPMENT	33,483	1.45 %
SOCIAL INVESTMENT AND MICROENTERPRISE	330,860	14.37 %
REFORM AND PUBLIC SECTOR MODERNIZATION	200,592	8.71 %
EXPORT FINANCING	20,296	0.88 %
PREINVESTMENT AND OTHER	54,706	2.37 %

^{*} Net of cancellations with monetary adjustments and export financing loan collections.



DOMINICAN REPUBLIC

STATUS OF LOANS IN EXECUTION AS OF SEPTEMBER 30, 2003

(Amount in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROYECTS	AMOUNT APPROVED*	AMOUNT DISBURSED	% DISBURSED
REGULAR PROGR	<u>AM</u>			
Before 1997	1	52,000	29,217	56.19 %
1997 - 1998	6	265,460	168,305	63.40 %
1999 - 2000	5	183,700	18,394	10.01 %
2001 - 2002	3	335,000	100,724	30.07 %
2003	2	14,400	0	0.00 %
TOTAL	17	\$850,560	\$316,640	37.23 %

^{*} Net of cancellations. Excludes export financing loans.



Dominican Republic

Tentative Lending Program

2003			
Project Number	Project Name	IDB US\$ Millions	Status
DR0146	Pension Reform Implementation	5.0	APPROVED
DR0152	Competitiveness Promotion Program	9.4	APPROVED
DR0149	Inform. Society's Institutional Develop	5.4	
DR0151	Financial Reform Consolidation Sector Program	100.0	
DR1001	Strengthening the Banking Sector, Supervision and Regulation	6.0	
DR0148	Sector Facility for Foreign Trade	5.0	
DR0159	Sustainable and Protection of Social Reforms	200.0	
	Total - A : 7 Projects	330.8	
	TOTAL 2003 : 7 Projects	330.8	
2004			
Project Number	Project Name	IDB US\$ Millions	Status
DR0076	Social Welfare Sector strengthening	5.0	
DR0150	Social Reform Program	100.0	
	Total - A : 2 Projects	105.0	
DR0141	Housing Program	30.0	
DR0156	Public Investment Project strengthening Management	5.0	
DR0154	Enhancement of Superior Education, Science and Technology	34.0	
DR0157	Fiscal Modernization Program	5.0	
DR0143	Rehabilitation Historical Center Sto Domingo	50.0	
	Total - B : 5 Projects	124.0	
	TOTAL - 2004 : 7 Projects	229.0	
	Total Private Sector 2003 - 2004	0.0	
	Total Regular Program 2003 - 2004	559.8	

^{*} Private Sector Project

INSTITUTION BUILDING FOR THE INFORMATION SOCIETY

(DR-0149)

EXECUTIVE SUMMARY

Borrower: Dominican Republic

Executing Secretariado Técnico de la Presidencia [Technical Secretary of the

agency: Office of the President] through a project execution team (PET)

Amount and IDB (OC): US\$5,400,000 **source:** US\$ 600,000

Total: US\$6,000,000

Terms and Amortization period: 25 years

conditions: Grace period: 36 months

Disbursement period: 30 months
Interest rate: variable
Inspection and supervision: 1%
Credit fee: 0.75%

Currency: US\$ (Single Currency Facility)

Objectives: The project's **general objective** will be to create an institutional

framework that nurtures the growth of the information society (IS) in the Dominican Republic by devising a national strategy in this area, and developing and starting up three pilot projects that will put that

strategy into practice.

The project entails a series of **specific objectives:** (1) strengthen the capacity to make information and communication technology (ICT) policies by building consensuses among the public sector, private sector, civil society and the academic community; (2) strengthen public management capacity to design and execute ICT projects; (3) provide the public, the business community, and other institutions with more and better access to ICT; (4) create a capacity for electronic government (e-government) based on promoting services to businesses; and (5) create the regulatory, institutional and academic conditions that will cultivate the growth of e-commerce.

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Description:

To achieve the objectives described above, the project has two components: (I) strengthening the capacity for policy making and management for the information society; and (II) Launching pilot projects in ICT access, e-government and e-commerce.

First Component: Strengthening the capacity for policy making and management for the information society (US\$669,000).

Subcomponent 1: Strengthening a mechanism for consensus-based policy-making. This subcomponent will be instrumental in strengthening and launching the newly created *Comité Nacional para la Sociedad de la Información* [National Committee for the Information Society] (CNSI). The project's resources will fund: (i) technical advisory services for formulation of the *Dominican Digital Agenda*, which will be the strategic framework of action to support the three areas of activity: access and connectivity, e-government and e-commerce; (ii) technical advisory services to help launch the three advisory committees and their operations; and (iii) technical seminars, promotional workshops and activities that enable CNSI to consult civil society and the private sector on each of the three thematic areas.

Subcomponent 2: Strengthening of strategic management (US\$404,000). This subcomponent will strengthen the capacity of the Ministry of Higher Education, Science, and Technology (SECYT) and *Unidad Dominicana Digital* [Dominican Digital Unit] (UDD) to carry out Information Society projects. The project will finance technical assistance to: (i) prepare a strategic plan of action for SECYT and the UDD, based on annual work plans; (ii) design and implement an integrated information system for the sector and project management and impact indicators; (iii) conduct technical training activities for officials of SECYT and UDD and the staff of other government agencies involved in the sector; (iv) design and implement a vehicle to promote the opportunities that the country has to offer in the ICT sector, including a web site, CD-Rom and printed materials; and (v) outfit the SECYT and UDD with the hardware, software and other equipment it will need to operate.

Second component: Start-up of pilot projects (US\$3.9 million)

Subcomponent 1: Design of a telecenter network (US\$2.6 million). The project's resources will also go toward development of a national network of 20 telecenters, called @ldea (hereinafter Telecenters @ldea or telecenters). Their immediate function is to provide basic access and connectivity services and training in ICT, as well as content-generation services to the public and to the Dominican business community. The network model will

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operate on the basis of merit-based competition. In other words, the civil society organizations (CSOs) or businesses selected to administer the telecenters will be those that are proven leaders in the community and are able to cater to their communities' specific needs. The telecenters are also designed to ensure their financial sustainability by developing a variety of revenue streams. The physical location of the facilities out of which the telecenters will operate and the choice of administrators will be determined by the technical eligibility criteria spelled out in the project's operating regulations.

Subcomponent 2: Creation and start-up of the Dominican Enterprise Portal (US\$849,000). The Dominican Enterprise Portal (hereinafter the PEM) will operate as a single window at which businesses will be able to obtain centralized, on-line information and support services to meet a variety of needs. The project will support implementation of the PEM in the following three phases: (1) PEM development and start-up, during which the project will finance technical assistance in order to: define, create and develop the content and services to be made available on the initial version of the PEM. which will offer common content and services and all the horizontal channels that are of interest to all Dominican businesses; (2) PEM consolidation. During this phase, the PEM will be promoted in the private sector and special incentives will be used to encourage users to bring supply into line with demand; (3) Expansion of the PEM, during which the advanced version of the PEM will be launched, involving the development and introduction of the vertical channels, designed to respond to the sector needs of the businesses in their dealings with the government, in other words, by sector of activity.

Subcomponent 3: Development of e-commerce (US\$389,000). The project will feature activities to strengthen the country's technical, institutional and administrative capacity to nurture the growth of e-commerce. The project will support the regulatory, institutional and academic development that facilitates the spread of e-commerce and the proper and harmonious use of this medium.

Strategy and justification for the Bank's participation:

Under the strategy planned by the Government of the Dominican Republic and the Bank, the priority areas of action include enhancement of the effectiveness of the democratic State and of the business environment. Specifically, the Bank's country paper provides that the strategy will seek to improve the capacity of institutions to respond to people's needs and aspirations and to dismantle restrictions on the business climate in productive sectors.

To achieve these goals, policies and institutional arrangements will have to be designed and programs executed that are responsive to the

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needs of the people and businesses of the Dominican Republic. The proposed project fits into the strategy of the government and of the Bank because it supports a series of measures that make the country's policy-making and administrative institutions better able to respond to the demands that the country's people and businesses have in the area of ICT and to dismantle "bottlenecks" and restrictions that stifle the performance of productive sectors.

Environmental and social review:

The program is not expected to have any direct environmental or social impact. Nevertheless, the public's improved access to ICT, the availability of electronic information and filing services for businesses, and the introduction of incentives to grow e-commerce are all variables with a positive social impact, inasmuch as greater use of the new technologies for communication, information and commerce will spur economic growth and generate value-added jobs. The Committee on Environment and Social Impact approved the Innovation Profile, without making any recommendations.

Benefits:

First, by putting resources into building up the policy-making (CNSI) and project-execution (SECYT and UDD) institutions in the ICT sector, the project will improve the country's public administration. Second, the pilot projects will introduce the proper incentives to get the Dominican public and business community to make greater use of ICT. In the medium and long term, more and better use of ICT in public management, commerce and in developing new projects by Dominican civil society and its private sector will serve as an incentive to stimulate economic and commercial activity, particularly trade and economic investment.

Risks:

The success of the project will in large part depend on the right partnership among agencies within the public sector, and between the public sector and the private sector and civil society in the ICT sector. The sustainability of the telecenters pilot project will largely hinge on the right technical selection of the businesses or civil society organizations that will run those telecenters. Then, too, the success of the pilot projects will also depend upon whether the promotional drive is successful at triggering a demand for the proposed new services. The project plans to mitigate these risks through the following measures: first, by creating the CNSI, a permanent mechanism enabling public sector institutions to coordinate with each other and with the private sector and civil society; second, by using very specific technical eligibility criteria for the project's main decisionmaking processes and spelled out in the project's operating regulations; and third, by creating and introducing open and transparent mechanisms for communicating with and disseminating information to civil society and the private sector.

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Special contractual clauses:

As conditions precedent to the first disbursement of the proceeds of the Bank financing, it must be demonstrated that: (i) the necessary staff have been hired to form the project execution team (PET) (paragraph 3.1); (ii) the program Operating Regulations, which the executing agency and the Bank have already prepared and agreed to, are in force (paragraph 3.3); and (iii) the inter-agency cooperation agreement between the STP and INDOTEL, which the parties have now drafted and negotiated, has been formally executed (paragraph 2.14).

Povertytargeting and social sector classification: This program does not qualify as a social equity enhancing project, as described in the indicative targets for Bank activities mandated by the Bank's Eighth Replenishment (document AB-1704). Nor does it qualify as a poverty-targeted investment (PTI).

Exceptions to Bank policy:

None.

Procurement:

The selection and contracting of consulting services and all procurements planned under the program are to be done according to the relevant Bank policies and procedures. International competitive bidding will be mandatory for procurement of all goods and services valued at US\$250,000 or over. Procurement in lesser amounts will be governed in principle by local law, provided it is compatible with the Bank's policies on the matter. The program procurement plan appears in Annex II to the project report.

I. BACKGROUND

A. Introduction

- 1.1 The Latin American and Caribbean countries are becoming increasingly mainstreamed into the information society (IS), as they build information and communications technology (ICT) into national development strategies. The success of these strategies depends on broad-based participation, involving the public sector, the private sector, and civil society, all called upon to play a role in devising policies regarding management of specific ICT projects. To respond to this challenge, the government's role is to coordinate and energize, while creating the institutional and regulatory conditions that will be needed to expand the benefits that accrue from the information society.
- 1.2 In the case of the Dominican Republic, only around 4% of the population has access to the Internet, less than the region's average of 6%. This widens the so-called digital divide, since the vast majority of the population is excluded from the new opportunities that ICT opens up. Then, too, the services and mechanisms now in place to stimulate participation in the IS are scattered and still insufficient.

B. The institutional variable's importance to the information society

- 1.3 Adroit management of the transformation that ICT brings about is a major challenge for the governments of Latin America and the Caribbean. That challenge calls for institutional, regulatory and organizational conditions that can enable a participatory approach to defining consensus-based objectives and properly articulated responsibilities.
- 1.4 Experience at both the international and regional levels reveals just how important the institutional variable is in the successful development of an IS. The Canadian program "Connecting Canadians" is a program headed by Canada's Ministry of Industry in conjunction and partnership with local governments, civil society and the private sector. The program's objective is to mainstream Canada into the "knowledge-based global economy." At the present time, 43% of Canada's population has access to the Internet, making it the second most connected country in the Americas.
- 1.5 The Chilean experience stands out at the regional level. That model establishes a forum within the Office of the President of the Republic to consult and confer with individuals and organizations associated with a variety of economic and social issues, one of which is development of ICT. Some 20% of Chile's population has access to the Internet, far above the average for Latin America as a whole, which is 6%. Uruguay's experience has also been instructive. Its strategy is coordinated by

Source: International Telecommunications Union, 2002 http://www.itu.int/ITU-D/ict/statistics.

the National Committee for the Information Society, which plots the strategy's general thrust using a mechanism of broad-based consultation and participation. Driving the strategy is a technical unit called *Uruguay en Red* [Uruguay On-line]. At the present time, 12% of Uruguay's population has access to the Internet, making it the second most connected country in Latin America.

C. The institutional vacuum and digital divide in the Dominican Republic

- 1.6 The Dominican Republic does not currently have a full and well-constructed IS development model that takes into account the vision and needs of the private sector and civil society in the ICT sector. A number of factors are to blame, among them the lack of a technical agency with leadership standing and executive capacity in the sector, and the absence of formal outreach channels that create participation by engaging the government with outside constituencies.
- 1.7 The list of institutions participating in the development of the IS in the Dominican Republic² ³ reveals a rich diversity of initiatives, indicative of a social awareness of the problems caused by the slow pace with which the new technologies are being assimilated. These initiatives are a positive sign of Dominican society's energy and drive in the sector. Nevertheless, these are scattered initiatives that lack the kind of planned, strategic direction that is driven by clearly identified priorities; the result is duplication of efforts and resources and a lack of coordination among the public, private and academic sectors. All this poses obstacles to proper development of the IS in the Dominican Republic. The lack of a tight institutional structure within the sector, which we call the *institutional vacuum*, has a direct impact on the *digital divide*, as a large part of the population and the business community is effectively being denied access to the new opportunities that ICT opens up.

D. Access and connectivity

1.8 ICT has not penetrated Dominican society to any appreciable extent, as evidenced by statistics like an Internet access rate of 214 users per 10,000 inhabitants and

The principals in the public sector are: the Technical Secretariat of the Office of the President, in the form of the Dominican Digital Unit and the Office of Assistant Secretary for Information Systems; the Secretariat of State for Education (SEE), in charge of the project *Aulas Virtuales de Enseñanza* [Virtual Classrooms] (AVEs) and Information Technology Laboratories; and the Secretariat of State of Higher Education, Science and Technology (SEESCYT).

The principals in the private sector are: the *Instituto Dominicano de Telecomunicaciones* (INDOTEL) [Dominican Telecommunications Institute], an autonomous telecommunications regulatory agency in the Dominican Republic; the *Instituto Tecnológico de las Américas* (ITLA) [Las Americas Institute of Technology], a computer science training center that also provides technical assistance in the ICT sector; telecommunications businesses (Codetel, Tricom, Centenial, Orange); the *Consejo Nacional de la Empresa Privada* (CONEP) [National Private Enterprise Council] which represents the chambers of commerce; universities (both public and private), and various civil society organizations that specialize in the ICT sector.

48.17 hosts per 10,000 inhabitants, according to the 2001 Report of the International Telecommunications Union (ITU) (see table of comparisons below). These ITU figures would mean that there are around 186,000 users in the Dominican Republic, which would be 2.1% of the population. The Bank's own consultations indicate that these figures underestimate Internet penetration in the country. With some 80,000 registered accounts, estimating between three and five users per account, the number of users would be 320,000, or 4% of the population. Even with this adjustment, the 4% penetration rate is low and the view is that there are competitive, technological and demographic factors that would make it easy to raise those figures much higher. Prominent competitive factors include the existence of a suitable, modern telecommunications regulatory framework and the presence of competition among the telecommunications businesses and Internet service providers (ISPs); the technological factors feature a considerable number of hosts or essential Internet hubs (50 for every 10,000 users) and a network infrastructure capable of servicing far more users; and chief among the demographic factors is the incentive to communications created by the large numbers of Dominican ex-patriots, particularly those living in the United States.

Table I-1

Table comparing development of ICT in the region (2002)							
Country	Inhabitants	Hosts	Hosts/10k	Users (k)	Users/10k	Penetration	
USA	285,926,208	106,193,339	3,714	142,823	4,995	49.95%	
Canada	31,015,018	2,890,273	932	13,500	4,353	43.53%	
Chile	15,494,583	122,727	79	3,102	2,002	20.02%	
Uruguay	3,361,006	70,892	211	400	1,190	11.90%	
Peru	26,093,083	13,504	5	3,000	1,150	11.50%	
Costa Rica	4,112,978	8,551	21	384	934	9.34%	
Argentina	37,486,880	465,359	124	3,000	800	8.00%	
Dominican Rep.	8,670,116	41,761	48	186	214	2.1%	

Source of data: ITU - 2002, http://www.itu.int/ITU-D/ict/statistics

1.9 Development of the IS is a priority of the Government of the Dominican Republic (GDR), which has attempted to spur that growth through a variety of access and connectivity projects, mainly targeted at the education sector. The AVEs (*Aulas Virtuales de Enseñanza*) [virtual classrooms] project is being conducted by the Secretariat of State for Education, in partnership with Codetel. Under that project, 99 portable classrooms have been launched, equipped with computers and Internet access, and distributed among elementary schools in the Dominican Republic. The LINCOS (Little Intelligent Communities) project is a program of the Costa Rican Foundation for Sustainable Development, headed by former Costa Rican President José María Figueres Olsén and carried out in conjunction with the Massachusetts Institute of Technology Media Lab and the Costa Rican Institute of Technology.

Currently five LINCOS have been installed in the Dominican Republic, located in the rural communities of Bohechio, El Limón, El Seibo, Hato del Yaque and Oviedo. These telecenters require an extremely large investment and, in terms of usage, are not living up to original expectations. The technology foundations are computer laboratories that promote the use of ICT in education. They are under the Secretariat of State for Education and are installed in secondary and/or middle schools nationwide. The ITLA (*Instituto Tecnológico de Las Américas*) [Las Americas Institute of Technology] is an autonomous government institution offering a varied program of ICT courses. The goal of the community telecenter pilot project run by the *Instituto Dominicano de Telecomunicaciones* [Dominican Institute of Telecommunications] (INDOTEL) is to install 15 community telecenters in various provinces of the country. Also, the private sector has been behind the growth of cyber cafes in recent years, which have been particularly successful in offering Internet connectivity services and basic offimatics, photocopying, telephone services and the like.

1.10 The following conclusions can be drawn from the analysis of the various access and connectivity projects to develop the IS in the Dominican Republic: the majority are infrastructure- and access-based initiatives; the considerable amount of infrastructure in place is modern but not very serviceable and should be offering services tailored to the particular interests of the communities concerned and that the people are willing to pay to use; numerous actors within Dominican society realize that an alternative model has to be devised, featuring content of interest to Dominicans, introduced through initiatives carried out by organized civil society and the private sector. Telecommunications businesses, the regulatory agency INDOTEL and various businesses in the private sector are clearly interested in participating in and/or helping to finance and execute development of an alternative model, which makes it all the more likely that the programs will be self-sufficient.

E. E-government

- 1.11 In very simple terms, e-government (EG) involves government providing content and services to the public and to businesses via electronic means like the Internet. The GDR's experience with EG is very mixed. A number of State agencies are still in the process of computerizing their most basic procedures, while other agencies are already redesigning their respective Internet portals, called "second-generation" portals. At the present time, most public agencies in the Dominican Republic have their own portals on the Internet. However, the existing portals vary greatly in terms of design, functionality and content quality.
- 1.12 The following chart lists all the GDR agencies that have dealings with Dominican businesses and an Internet portal:

Table I-2

Dealings with business	Agency	Portal
Very heavy. All businesses in the	Secretariat of State for Industry and Commerce	www.seic.gov.do
Dominican Republic are obligated to report their	Internal Revenue Office	www.dgii.gov.do
business activity to these	Secretariat of State for Labor	www.set.gov.do
agencies:	Dominican Social Security Institute	www.idss.org.do
Heavy. 60% of	Secretariat of State for Agriculture	www.agricultura.gov.do
Dominican businesses make inquiries of and		www.sea.gov.do
have dealings with these	Secretariat of State for Tourism	www.dominicana.com.do
agencies. They are mainly	National Agriculture Council	www.cns.gov.do
in the following sectors: agriculture; tourism; free	Dominican Export-Promotion Center	www.cedopex.gov.do
trade zones; importation	Customs Bureau	www.dga.gov.do
and exportation.	Secretariat of State for Public Health	www.saludpublica.gov.do
	Central Bank of the Dominican Republic	www.bancentral.gov.do
Moderate. Between 25	Secretariat of State for Foreign Affairs	www.serex.gov.do
and 40% of businesses use the services of these	Foreign Investment Promotion Office	www.dr-opin.com
agencies	National Board of Exportation Free Trade Zones	www.cnzfe.gov.do
Light. Some businesses	Dominican Sugar Institute	www.inazucar.gov.do
have dealings with these agencies because of the	Price Stabilization Institute	www.inespre.gov.do
type of business	National Telecommunications Institute	www.indotel.org.do
concerned or because of	National Statistics Office	www.one.gov.do
specific needs.	Dominican Postal Institute	www.inposdom.gov.do
Very light. Very few	General Bureau of Mines	www.dgm.gov.do
businesses require the services of these agencies.	Office of the Superintendent of Banking	www.supbanco.gov.do

1.13 The review done of the content and services at each portal has found that only the following transactions can be done via the Internet:

Table I-3

Agency	On-line transaction
Internal Revenue Office	Pay property-transfer taxes
Internal Revenue Office	Pay goods and services tax
Internal Revenue Office	Pay income tax withholding
Secretariat of State for Labor	Employment intermediation services (job offers)

- 1.14 From the analysis done of the government services now available on-line the following conclusions can be drawn: there are no common objectives and guidelines for defining, designing and developing portals; existing portals have few functional links between them and every agency has developed its portal according to different criteria of functionality, content and services; much of the content is outdated and of little relevance to users, like information about an agency's internal structure and its executives, and only secondary importance is assigned to making useful and relevant content accessible to users; what is missing is a capacity to manage the portal, and its content, establish procedures to generate data and to create incentives to boost demand; also lacking are promotional efforts and incentives to encourage users to employ the services.
- 1.15 The following were the conclusions drawn from the analysis done of businesses' current and potential demand for EG services: the typical profile of an EG-services user is a big business, of the kind that routinely has a large volume of information to report, sufficient technological resources and a staff trained in how to use those resources; the critical mass of potential users of EG services are microenterprise and small and medium-sized business (see the illustration below); businesses demand easier access to GRD information, and are looking for information that is complete and updated constantly (especially information about laws passed, prices and tariffs, customs requirement and taxes); businesses want access to the forms needed for government filings, in digital format (PDF); the businesses want access to pricing tools, whether on-line or off-line by downloading and installing tools in the user's computer; businesses also want to be able to handle payment transactions over the Internet, enabling them to do all their paperwork by Internet, without having to go to the offices of the agencies concerned.

25% 25% 50% Manufacturing Commerce Services Nº Businesses/Average # Employees Microenterprise 340,000 / 2.5 From 1 to 10 employees Small and medium-sized enterprises 6,000 / 42 From 11 to 200 employees Large-scale businesses 600 Over 200 employees Nº Businesses 1.000 5.000 350.000

Table I-4
Profile of the Dominican Business Sector

F. E-commerce

- 1.16 The EC regulatory framework in the Dominican Republic today consists mainly of the recently enacted E-commerce (EC) Act. The latter is divided into two main sections: a first section that recognizes the legal validity of data messages, and a second that legalizes electronic signatures and documents and makes them valid for legal purposes. The E-commerce Act upholds the legal validity of data messages and guarantees the principles of authenticity, integrity, privacy and nonrepudiation.⁴ A core legal-technological issue in this subject area (and covered in the EC act) is the legal recognition accorded to electronic signatures and encryption of transactions, to protect confidentiality or security, the integrity of the transaction and the authenticity of the parties involved in e-commerce transactions. But the law's regulatory function needs to be enhanced with more provisions on certification agencies and auditing and regulatory agencies, including establishment of the mandatory register of foreign certification authorities. Such measures will be an important boost to the development of e-commerce in the Dominican Republic. If the goal is a framework that establishes public confidence in electronic transactions, then the solution is to legalize only those "virtual notaries" that are audited or regulated.
- 1.17 Another conspicuous feature of the EC act and of other bills on the subject is the lack of sufficient regulation in the areas of (i) user and consumer protection and (ii) on-line privacy. These are fundamental to the development of EC.
- 1.18 The outlook for on-line consumer protection is not promising, as consumer and user protection remains unregulated even in traditional commerce. Legislation protecting consumers' rights is needed not just in EC but in the more traditional realms of commerce as well. The potential for violation of consumers' rights is all the greater in a medium as universal, accessible and public as the Internet. Enactment of a modern and sweeping body of consumer protection law, with specific provisions concerning on-line consumer protection, will be good for the development of EC in the Dominican Republic.
- 1.19 Privacy issues are also problematic in the Dominican Republic. Where the treatment of personal data is concerned, the laws on data protection seek to guarantee and protect public freedoms and the fundamental rights of natural persons, especially honor and personal and family privacy. The Dominican Republic does not now have specific regulations on the subject. This poses a considerable risk, since at the present time cyber-businesses are working feverishly to compile personal data, at any cost, and then sell the data and use it as a means to

⁴ The law is a faithful duplication of the 1996 Model Law prepared by the United Nations Commission on International Trade Law and applied in most Latin American countries.

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monitor users.⁵ A system has to be put into place that embodies such principles as: consent, notification, right of access, time limits on data collection, prohibitions on certain secondary uses and the existence of an independent control agency in combination with another instrument of judicial control. It is worth noting that the cyber crime bill proposes a number of criminal sanctions for violators. Still, some order of priority has to be established when it comes to on-line privacy; in other words, the first priority must be a system of civil liabilities, with a detailed description about protecting people's data and opt-in/opt-out situations for marketing data with express customer consent.

- 1.20 With EC growth, institutional capacities will have to be built up in the public sector and the private sector, as will mechanisms and spaces enabling the two sectors to coordinate. Within the public sector, the institutional development that fosters the growth of EC involves regulatory agencies, institutions offering public services via digital media, agencies providing national statistics on the Internet and EC, public education institutions, public ICT research and development institutions, and even public agencies that procure goods and services over the Internet. It is the Dominican Telecommunications Institute (INDOTEL)⁶ that is responsible for maintaining the EC's regulatory framework. It must also create the mechanisms needed to control and monitor the progress of electronic signatures and audit and control local certification agencies.
- 1.21 Within the private sector, the institution building necessary to grow EC is still in the very early stages. The country does not have digital certification and auditing of purveyors of e-commerce services on a scale needed to build confidence among EC customers. To hold one's own as a certification and auditing authority, the key variable is confidence and trust in the system, which in turn comes from the reputation and prestige enjoyed by the party vouching for the data contained in the certificate, which accounts for use of the term Trusted Third Party. Just as chambers of commerce frequently carry lists of businesses and issue paper certificates to vouch for businesses' practices, in some countries they are also increasingly issuing digital certificates. Such is the case, for example, with Certicámara in Colombia, an open electronic digital certification agency created by the chambers of commerce of Bogotá, Medellín, Cali, Bucaramanga, Aburrá Sur, Cúcuta and the Confederación Colombiana de Cámaras de Comercio (Confecámaras). A private corporation operating as an open certification agency, Colombia's Certicámara is under the control and supervision of Colombia's Superintendency of Industry and Commerce. Another example in the region is the Lima Chamber of Commerce, which created a

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An example would be "cookies." With cookies, small strings of text are stored in the computer's memory so that the browser can be identified from various pages at the same web site and even when the user revisits the same site days apart. The legal and factual implications for violations of the right to information-related self-determination, and privacy in general, are obvious.

⁶ General Telecommunications Act No. 153-98.

service, also called Certicámara, to promote business by facilitating transactions and contracts between parties, and thus help drive EC development in Peru. Among other services, Peru's Certicámara issues electronic certifications for individuals and for servers.

1.22 In the academic world, no Dominican university offers a program in EC law that examines the legal implications that the new technologies have for commerce. At the present time, e-commerce is an important area of the law. Professionals and students alike need to be brought current, to understand this latest way of doing business, the new businesses' virtual operations, and the new concepts of electronic value. They need to study the literature and the jurisprudence of the developed countries, where the digital economy is at a much more advanced stage, and also try to forge laws and academic programs that fit the Dominican reality vis-à-vis the new pairing of information technology and law.

G. The project's innovativeness

- 1.23 The project is responsive to the slow growth of the IS in the Dominican Republic. This new and complex phenomenon involves the globalization of markets and a constant reconfiguration of know-how and knowledge that, in turn, necessitates speed in making and acting on decisions. To cope with these changes, the country will have to create the institutional conditions that will enable it to develop a model for IS development "from the bottom up," by stimulating and generating a capacity to build policy- and strategy-related consensuses among the public sector, the private sector, the academic sector and civil society, in a newly configured, deliberative space.
- 1.24 The project is innovative because it (i) takes a new institutional approach to the introduction of ICT in Dominican society, which is to engage all responsible actors in the sector by using an inclusive approach ("from the bottom up"), thereby clearing away the chief institutional obstacles, namely dispersion, verticality and exclusion; (ii) builds a capacity for technical management in the ICT sector that is executive, functional and efficient in nature and aimed at correcting the absence of strategic direction and duplication of efforts; (iii) launches activities and creates learning opportunities in ICT access, e-government and e-commerce, all calculated to correct the problem whereby some people and businesses are being excluded from enjoying the benefits that ICT offers; and (iv) uses semiannual innovation evaluations to continually monitor the program's innovation and learning elements.

H. Strategy and justification of the Bank's participation

1.25 Under the strategy planned by the Government of the Dominican Republic and the Bank, the priority areas of action include enhancement of the effectiveness of the democratic State and of the business environment. Specifically, the Bank's country paper provides that the strategy will seek to improve the capacity of institutions to

- respond to people's needs and aspirations and to dismantle restrictions on the business climate in productive sectors.
- 1.26 To achieve these goals, policies and institutional arrangements will have to be designed and programs executed that are responsive to the needs of the people and businesses of the Dominican Republic. The proposed project fits into the strategy of the government and of the Bank because it supports a series of measures that make the country's policy-making and administrative institutions better able to respond to the demands that the country's people and businesses have in the area of ICT and to dismantle "bottlenecks" and restrictions that stifle the performance of productive sectors.

I. Coordination with other sources of cooperation

1.27 During the project-preparation phase, the Bank team coordinated with the international donor community and international financial institutions to avoid duplication and to create synergies within the ICT sector possible. Coupled with the connectivity projects mentioned earlier (see paragraph 1.9) is an institutional strengthening project to build up INDOTEL's regulatory capacity. That project is now in its final stage of execution. The objectives of this World Bank-financed project complement and are supportive of the present project, in that it, too, is intended to improve the regulatory, legal and competitive environment of telecommunications in the Dominican Republic.

II. THE PROGRAM

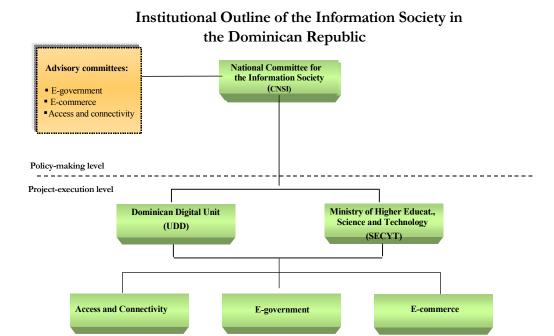
A. Objectives

- 2.1 The project's **general objective** will be to create an institutional framework that nurtures the growth of the information society (IS) in the Dominican Republic by devising a national strategy in this area, and developing and starting up three pilot projects that will put that strategy into practice.
- The project entails a series of **specific objectives:** (1) strengthen the capacity to make information and communications technology (ICT) policies by building consensuses among the public sector, private sector, civil society and the academic community; (2) strengthen public management to design and execute ICT projects; (3) provide the public and the business community with more and better access to ICT; (4) create a capacity for electronic government (e-government) based on promoting services to businesses; and (5) create the regulatory, institutional and academic conditions that will cultivate the growth of e-commerce.

B. Description

- 2.3 To achieve the objectives described above, the project has two components: (I) strengthening the capacity for policy making and management for the information society; and (II) launching pilot projects in ICT access, e-government and e-commerce.
 - 1. Component I: Strengthening the capacity for policy making and management for the information society (US\$669,000)
- 2.4 The purpose of this component is to build up the managerial, technical, administrative and technological capacity of the Government of the Dominican Republic (GRD) to develop and put into practice a national ICT strategy.
 - a. Subcomponent 1: Strengthening a mechanism for consensus-based policy making (US\$265,000)
- 2.5 Public policy in the area of IS is the product of a complex interaction among public agencies, private agencies and civil society. The graph below illustrates the institutional configuration within the country for development of a national IS strategy, which was designed with the Bank's technical support and embodied in Executive Order 686-02 (that order is in the project's technical files). Two levels are distinguished: a *policy making* level headed by the **National Committee for the Information Society (CNSI)**; a *project management* level with the **Ministry of Higher Education**, **Science**, and **Technology (SECYT)** and the **Dominican Digital Unit (UDD)**.

Table II-1



- 2.6 This subcomponent will support the strengthening and launch of the recently created *National Committee for the Information Society (CNSI)*. The CNSI's mandate is to establish policies and directives and to devise proposed strategies in the ICT sector. The CNSI is composed of: the *Secretariado Técnico de la Presidencia*; the Ministry of Higher Education, Science and Technology; the President of INDOTEL; the Director of the Las Américas Institute of Technology; a representative of the telecommunications businesses (based on annual rotation); the Rector of the Autonomous University of Santo Domingo; a representative of the civil society organizations (elected by the Advisory Board of the Social Cabinet and the National Board to Monitor Nonprofit Associations); the President of the National Private Business Council (CONEP) and the Director of the UDD. The CNSI will function through plenaries and three advisory committees: e-government, e-commerce, and access and connectivity.
- 2.7 The project's resources will fund: (i) technical advisory services for formulation of the *Dominican Digital Agenda*, which will be the strategic framework of action to support the three areas of activity: access and connectivity, e-government and e-commerce; (ii) technical advisory services to help launch the three advisory committees and their operations; and (iii) technical seminars, promotional workshops and activities that enable CNSI to consult civil society and the private sector on each of the three thematic areas.

b. Subcomponent 2: Strengthening of strategic management (US\$404,000)

- 2.8 This subcomponent will help strengthen the capacity of the Ministry of Higher Education, Science, and Technology (SECYT) and the Dominican Digital Unit (UDD) to carry out Information Society projects.
- 2.9 The project will finance technical assistance to: (i) prepare a strategic plan of action for the SECYT and UDD, based on annual work plans; (ii) design and implement an integrated information system for the sector and project management and impact indicators; (iii) conduct technical training activities for SECYT and UDD staff and staff of other government agencies involved in the sector; (iv) design and implement a vehicle to promote the opportunities that the country has to offer in the ICT sector, including a web site, CD-Rom and printed materials; and (v) outfit the SECYT and UDD with the hardware, software and other equipment needed for their operations.

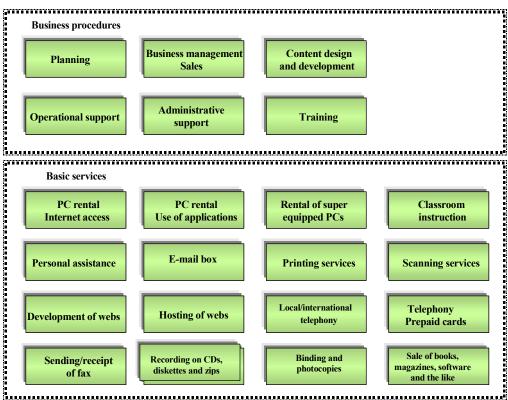
2. Component II. Start-up of pilot projects (US\$3.8 million)

a. Subcomponent 1: Design of a telecenter network (US\$2.6 million)

- 2.10 Principal features of a Telecentro @ldea. The project's resources will also go toward development of a national network of 20 telecenters, called @ldea (hereinafter Telecenters @ldea or telecenters). Their immediate function is to provide basic access and connectivity services and training in ICT, as well as content-generation services to the public and to the Dominican business community. The network model will operate on the basis of merit-based competition. In other words, the civil society organizations (CSOs), universities or businesses selected to administer the telecenters will be those that are proven leaders in the community and are able to cater to their communities' specific needs. The telecenters are also designed to ensure their financial sustainability by developing a variety of revenue streams. The physical location of the facilities out of which the telecenters will operate and the choice of administrators will be determined by the technical eligibility criteria outlined in the project's Operating Regulations.
- 2.11 **Telecentro @ldea services.** The telecenters will feature the following services and business procedures: **basic services**, i.e., access, connectivity, training, telephony, offimatics and value added services (technological assistance, hosting, design of web sites, and the like; **content generation services**, a product of the content-development and services projects financed by the Bank operation; and **business procedures** for management of a Telecentro @ldea, including planning, administration, support, content development and upkeep.

2.12 The following graph is a grid of the procedures and services offered by a Telecentro @ldea:

Table II-2



- Basic services. The telecenters will offer a varied range of services to diversify 2.13 their revenue streams and thus ensure their own financial sustainability. Accordingly, the telecenters will provide the following services: rental of PCs for use of Internet tools; rental of PCs for use of applications; access to video conferences, Internet browsing and voice; delivery of ICT training courses; one-onone customer services like tutorials, information searches, use of software, and so on; setting up of e-mail accounts for users; printing; photocopying and scanning services or "digitization" of images brought in by customers; design of web pages to the user's specifications; hosting on the servers of the Telecentros @ldea network; local and international phone calls; fax transmission and receipt; copying information onto CDs, diskettes or zips; and the sale of books, magazines, software and hardware to users, either directly or through suppliers. The basic telecenter model will be the same at all hubs on the network (look, furnishings, merchandising, equipment, portfolio of services). The reason for standardization is to achieve economies of sale, and therefore lower costs.
- 2.14 The telecenters will be physically located on pre-existing premises that institutions in the public sector, the private sector and civil society will provide for project

execution. The Dominican Telecommunications Institute (INDOTEL) agreed to provide STP beneficial use free of charge of certain offices of the former National Telecommunications Administration throughout Dominican territory under an inter-agency agreement between the STP and INDOTEL. Signature of this agreement, which the parties have now been drafted and negotiated, is a condition precedent to the first disbursement. A number of municipal governments have expressed interest in providing office space within their respective buildings and government offices, and various civil society organizations have expressed an interest in providing their offices for the telecenters. In the end, the locations of the telecenters will be decided on the basis of the technical eligibility criteria that appear in the project's operating regulations. Among those criteria are the following: the provision of a usable physical space, undivided and measuring at least 20 m2, assuming a minimum of six computers installed and functioning, and a similar surface area that may be divided up by partitions or walls to make it suitable for training courses; and access roads and access facilities like ramps, railings, a minimum door width of 80 centimeters, etc., both inside and outside the telecenters, to enable older adults and the disabled to get in and out easily.

- 2.15 One general criterion in choosing the telecenters' geographic location will be a balanced distribution nationwide, the priority being installation of at least one telecenter in each of the country's nine regions. The final selection of the telecenters' geographic locations will be done according to the specific selection criteria spelled out in the project's operating regulations. They include: an area located within the perimeter of the city in the corresponding municipality; a heavily traveled or heavily populated area; and an area where the bulk of public institutions or agencies, cultural, social and community organizations are located in order to facilitate dissemination and to service as many people as possible.
- 2.16 The project will fund the fixed costs of the initial investment in the telecenters, which include: (i) physical remodeling and outfitting of the premises where the telecenters will operate, as needed; (ii) hardware, including servers, computers, computer projectors, scanners, printers, CD burners, videoconferencing cameras and photocopiers; (iii) software, including standard applications licenses (text editor, work sheet, project management, database, presentations and agenda), specialized applications licenses (web site design, audiovisual design, etc.) and licenses for server management and e-mail; (iv) the communications equipment, including the telephone exchanges and cabling; and (v) the power equipment, including a generator and voltage converter to ensure an uninterrupted power supply.

Pursuant to Executive Order 685-00, the country is currently divided into the following nine regions: Central Cibao; Del Valle; National District; Enriquillo; East; North Central; Northeast; Northwest; and Valdesia.

- 2.17 The project will finance the training services that the telecenters will offer, including the following: basic, intermediate and advanced courses in Windows and Office applications or some other similar software; courses in how to use the Internet and e-mail; intermediate and advanced courses on database management; courses on the use of financial accounting applications for small and medium-sized businesses, and courses on how to create, design, develop and maintain web sites for small and medium-sized businesses and CSOs. The project will also finance resources to promote the telecenters, which will include: (i) open introductory courses, which the telecenters will offer free of charge, about the services and the advantages they offer; (ii) free introductory courses about the Internet and ICT; (iii) lectures and/or instructive sessions about the IS, featuring special guests; (iv) advertising in newspapers, magazines and web sites as well as radio and television spots; and (v) preparation and circulation of a newsletter or other such monthly news bulletin on the various activities and services that the telecenters offer
- 2.18 The operations handbook for the telecenters network is available in the project's technical files and describes the following in detail: (i) the business procedures for management of the telecenters, specifying in each case who the responsible party is and what the objectives, scope, functions and measurement indicators are; and (ii) the basic and content-generation services that the telecenters will offer, specifying the required inputs, minimum operating requirements, participants and principal operations that delivery of each service involves.
- 2.19 Content-generation services: "Desarrolla tu Ide@ en la @ldea". The project will support a content-generation program called "Desarrolla tu Ide@ en la @ldea" [Develop your Ide@ at @ldea]. The purpose of this program is support local initiatives to develop ICT- or Internet-based products and services. Examples of such initiatives would be the creation of virtual centers for marketing products, informative web sites, software applications, interactive training courses, e-forums that engage community participation, networks to converse with Dominicans abroad, digitized educational information (teaching materials, interactive electronic texts, and so on), digitized cultural information (music, painting, literature, photography, gastronomy, etc.), and so on.
- 2.20 The proposals are to specify what results the initiatives are intended to achieve, the sphere of application, and the anticipated benefits. The initiatives may be proposed by individuals, under the auspices of chambers of commerce, businesses, universities, cooperatives or CSOs. The program will support projects whose results are responsive to the concrete needs or interests of Dominicans, whether at home or abroad. Priority will be given to initiatives aimed at generating economic-commercial or educational content. The project will finance: (i) preparation of a handbook on generating Internet projects, services, and applications, which will serve as a technical guidebook for interested candidates and that will be made available, free of charge, at the telecenters; (ii) free training courses, offered at the

- telecenters, on how to develop Internet content and as a way to promote the program; and (iii) resources to support individual content-development initiatives ranging from US\$5,000 to US\$20,000 each.
- 2.21 Candidates are to complete a content-development application showing that the demand for the product or service to be offered is there. The program will be particularly attentive to the application, which will be one of the decisive factors in determining whether it will be selected and funded. The content-development application will be submitted to the SECYT, which will evaluate it and make a technical recommendation to the CNSI, with the support of the UDD and the firm co-managing the project. The CNSI will make the final decision. The content-development application form, including the technical criteria for determining whether the proposal is eligible, can be found in the project's technical files.
- 2.22 Managing a Telecentro @ldea. The telecenter management model will operate on the basis of merit-based competition, where those civil society organizations (CSOs), universities or businesses selected to administer the telecenters will be those that are proven leaders in their communities and thus able to cater to their communities' specific needs. Applicants eligible to take part in the administration of the telecenters include, among others, small and medium-sized businesses, microenterprises, nonprofit organizations, grassroots organizations, universities and chambers of commerce. Applicants must complete a participation application, and include with it a Telecenter management business plan. These documents must include such specifics as: the legal nature of the respective institution; the human resources available for the telecenters' administration; a financial proposal for the telecenters' operations that demonstrates both financing and investment capability; and at least three references from local organizations that support or sponsor the institution's participation. A request to participate is to be filed with the SECYT, which will evaluate it and make a technical recommendation to the CNSI, with the support of the UDD and the firm co-managing the project. The CNSI will make the final decision. The form to file the application for participation and the structure of the business plan are available in the project's technical files.
- 2.23 The telecenter management team that the interested institution is proposing should include, at the least, an administrator and technical support assistant. The administrator's functions will be to: plan, make a record of and check the accounts, human resources, logistics, cash on hand and billing, with an eye to raising management efficiency; perform the business management functions in the administrator's business area; formulate and implement the policies, rules and procedures for administration of the telecenter's human resources; devise and develop the telecenter's business plan; oversee the training programs; control cash flow and plan for financial needs; ensure that the goods and services required for the various activities are available on time; and select the service providers. The functions of the technical support assistant will be to: advise telecenter customers on all hardware- and software-related issues that arise and provide any additional

service requested; provide support and assistance on everything related to the telecenter's technical support; answer customers' questions about the use of the Internet and other software programs; check that the computer equipment is running properly; test hardware and software at affected stations; do periodic maintenance work on the equipment, and carry a log of customers' questions or problems, among others.

- 2.24 The project will finance a training program for telecenter management teams, designed to teach or reinforce knowledge in the following subjects: (i) telecenter management; (ii) technical administration of telecenters; and (iii) content development and management. The details of the training program are available in the project's technical files.
- 2.25 **Financial sustainability**. The telecenters are designed to be sustainable and forprofit ventures. Some keys to ensuring the telecenters' financial sustainability are: diversification of revenue streams; totally autonomous executive and financial administration by private-sector and/or civil society institutions, which are to pay the telecenters' salary, operating and maintenance expenses; donation of the use of the premises out of which the telecenters will operate; the support provided by the Bank's project to shore up the initial fixed investment; the support provided by the Bank's project to shore up some of the telecenters' strategic activities (especially during their initial phase of operations), like promotion, dissemination and training; and the negotiations already in progress between the UDD and the telecommunications businesses and Internet service providers in the country to get special tariff breaks for the telecenters.
- 2.26 The project team's analysis of the telecenters' financial return yields an internal rate of return (IRR) averaging 67% per telecenter. The analysis based on the net economic income ranges from a net present value (NPV) of US\$11,703 discounted at an annual rate of 25%, to an NPV of US\$18,998 discounted at an annual rate of 15%, and an NPV of US\$24,034 discounted at an annual rate of 10%. The analysis and detailed financial projections are available in the project's technical files. The usage rates for the services offered and the financial returns are summarized below:

Table II-3

Services offered	Year 1	Year 2	Year 3	Year 4	Year 5
No. PCs for rent	6	6	6	6	6
Average usage rate	39%	41%	44%	46%	49%
No. training courses per month	14	14	14	14	14
Average usage rate	4	7	9	11	13
No. telephones for lease	10	10	10	10	10
Average usage rate	11%	13%	15%	17%	19%
Days of service per month	22				
Hours of service per day	10				

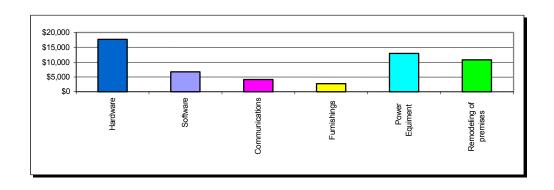
Return (US\$)	Year 1	Year 2	Year 3	Year 4	Year 5
Annual net income (after income tax)	-\$9,788	\$743	\$8,338	\$15,933	\$23,528
Cumulative annual net income	-\$9,788	-\$9,045	-\$706	\$15,227	\$38,756
Net margin (income/sales)	-11.3%	0.7%	6.9%	11.5%	15.1%

Net present value (NPV) and internal rate of return (IRR)								
Annual discount rate	Year 1	Year 2	Year 3	Year 4	Year 5	NPV	IRR	
	-9,788	743	8,338	15,933	23,528		67%	
25%	-\$8,869	\$226	\$4,659	\$7,180	\$8,507	\$11,703		
15%	-\$9,198	\$306	\$5,788	\$9,667	\$12,435	\$18,998		
10%	-\$9,380	\$355	\$6,500	\$11,330	\$15,229	\$24,034		

2.27 The following charts show the structure of the average initial investment costs and a percentage breakdown of the telecenters' operating income and expenditures:

Table II-4

Initial Investment Costs per Telecenter					
Type of Asset	US\$				
Hardware	17,671				
Software	6,733				
Communications	4,114				
Furnishings	2,720				
Power equipment	12,957				
Remodeling of premises	10,806				
Average total initial investment per telecenter	55,000				



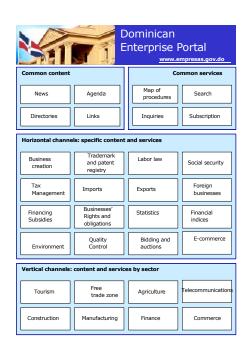
b. Subcomponent 2: Creation and start-up of the Dominican Enterprise Portal (US\$849,000)

- 2.28 The Dominican Enterprise Portal (hereinafter the PEM) will operate as a single window at which businesses will be able to obtain centralized, on-line information and support services to meet a variety of needs. The PEM's mission is to offer the client both content and services over the Internet. To that end, the PEM will perform the following functions:
 - a. Access: the PEM as the window through which to access all government agencies that have dealings with business (both from the various content channels and from the links).8
 - b. Availability 24/7: the PEM as a virtual extension of the government, where information is available anytime and from anywhere. This means businesses have very cheap access to information (fewer trips to government offices, less time spent waiting in lines).
 - c. Updated content: the PEM as a reliable source to consult about all aspects of the business-government relationship (news, agenda, calendar, proposed legislation, executive orders).
 - d. Geared to businesses: the PEM as a direct source to which businesses can turn with questions and to seek support, according to the nature of their needs: creation of businesses, financing and subsidies, bids, tax management, and others.
 - e. *eForms*: the PEM as repository of the forms used in procedures done in electronic format, for downloading and subsequent use.
 - f. Dynamic publication: the PEM as a tool to subscribe to and publish news and content of particular interest to business (*newsletters*).
 - g. Information services: the PEM as a tool to answer questions and find information rapidly and easily (search engine, directory, questions and FAQ).
 - h. On-line transaction: the PEM as a virtual office, with confidential transaction data recording capability and secure payment connection.

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The name of the government agencies that have some type of relationship with the private sector and their classification based on the intensity of the dealings between the two sides (very heavy, heavy, moderate, light, very light) are available in the project's technical files.

- 2.29 All these functions should be responsive to the private sector's needs, everything from big business to microenterprise. The latter have a particularly limited relationship with government and are at the greatest disadvantage in the so-called *digital divide*.
- 2.30 The diagram to the right is a map of the content and services proposed for the PEM. It is divided into the four sections by which the various contents and services are grouped, under the following headings: common content, of general use to all users; common services, for use by all users: horizontal channels, which offer content and services to all businesses, according to the type of need or the business to be done with the government; and vertical channels, which offer content and services to businesses, by sector of activity. A more detailed description of the general and specific contents and services is available in the program's technical files.



- 2.31 The project will support the following three phases of the PEM's implementation:
 - a. **Development and launch of the PEM.** The initial version of the PEM will be launched in this first phase. It will offer the common content and services and all the horizontal channels, which are those of interest to both Dominican and foreign businesses. The project will finance technical assistance for: the definition, creation and development of the content and services that will be available on the initial version of the PEM;⁹ the names of the public agencies that will be responsible for producing the content and services to be offered; the businesses that will drive the demand¹⁰ and the transactions that must be on-line at the PEM because of what they will mean for the Dominican government and businesses in terms of savings and ease;¹¹ design and technological development of the PEM, which includes the services architecture (functionality), the applications architecture (software) and the systems architecture (hardware); the

An itemization of the content and services proposed for the PEM is available in the project's technical files.

The preliminary analysis of the potential demand for the PEM within the Dominican business sector is available in the project's technical files.

The inventory of the business sector's principal dealings with the Dominican government (on-line transactions included) is available in the project's technical files.

training of the PEM management team in the areas of e-government, management of Internet portals (English and Spanish), use and administration of the content management systems and administration and technical support of portals; creation and start-up of the inter-institutional coordination mechanisms; design and execution of internal¹² and external¹³ PEM promotional activities, and start-up of PEM service to the Dominican private sector.

- b. **PEM consolidation.** In this phase, the PEM will be promoted within the private sector and special incentives will be offered to users, especially SMEs, to bring supply into line with the demand. The project will finance: the PEM's promotion within the private sector by, for example, registering other links from other government sites and from abroad with the PEM, registering the PEM on Internet search engines (Yahoo, Google, and so on), holding lectures and distributing printed and CD-Rom support materials; use of incentives like giving users priority for business done on-line (e.g. questions, requests, declarations, payments, etc.), creating some flexibility in the rates charged for these procedures, and lowering the rates; and review of the configuration of the technical platform and tuning, if necessary, to get the PEM up to optimum response time, given the demand from users as reflected in the PEM's indicators (pages visited, concurrency, response time).¹⁴
- c. **Expansion of the PEM.** In the third phase, an advanced version of the PEM will be introduced. It will involve the development and launch of vertical channels designed to respond to the sector needs of the businesses in their dealings with the government; in other words, the services are by sector of activity and area of production. The project will involve: creating the content and developing the services for the launch of the vertical channels; reviewing and updating the interinstitutional coordination mechanisms; designing external promotional activities; and advertising and introducing special incentives for the more sophisticated version of the PEM.

c. Subcomponent 3: Development of e-commerce (US\$389,000)

2.32 The project will feature activities to strengthen the country's technical, institutional and administrative capacity to nurture the growth of e-commerce. The project will

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They include creation of an Intranet-styled Web, publication of communiqués and writs in the in-house publications of the various government agencies, institutional lectures about the PEM and sending of an email containing an introduction to the basics of the PEM, to all government officials who have an e-mail account.

They include announcements at the country's major information web sites, in the printed press and in the major economics publications.

The tuning may consist of: expanding access to broadband Internet services; more processors; configuration of operating systems, and others.

support the regulatory, institutional and academic development that facilitates the spread of e-commerce and the proper and harmonious use of this medium.

(i) Regulatory development

- 2.33 To start with, this subcomponent will assist with the engagement of specialized consulting services to analyze, design, formulate, and disseminate general and specific regulations to ensure a level of technical and legal security that fosters the use of e-commerce in the Dominican Republic.
- 2.34 The project will then finance the launch of the mechanisms to publicly disseminate the legislative proposals and to consult the private sector and civil society, which will involve discussion forums, workshops, seminars and other activities.

(ii) Institutional development

- 2.35 This subcomponent will provide resources and create incentives for institutional development within the private sector. This, in turn, will generate a supply of quality and digital certification services for the EC businesses. The activities are geared to promote these services at private multisector institutions representative of the Dominican private sector with the track record and standing to inspire trust and confidence among entrepreneurs and with the human and technological resources to deliver the new services. The specifics of the technical criteria it is suggested be used to select institutions that stand to benefit from the project, as well as the model for a quality and digital certification company are available in the project files.
- 2.36 **Support for the digital certification services.** First, the project will help the private sector offer services certifying the authenticity and nonrepudiation of electronic transactions, in keeping with the requirements of the new EC Act. The project funds will be used to assist all companies concerned with the financing of technical advisory assistance to design business plans for introducing the new digital certification services, ¹⁵ which will be performed by certification companies; ¹⁶ technical advisory services to design the applications architecture (software) and the systems architecture (hardware) necessary to start up the certification company; technical assistance for the design and launch of a web site that helps orchestrate and promote the development of the new services; training services for staff in charge of the certification services and of the controller of certification authority, within the public and private sectors alike; resources to facilitate dissemination of the new services. This project activity is intended to protect the security of EC

The certification company will be part of a private, multisector entity representative of Dominican business.

¹⁵ The detailed terms of reference for this activity are available in the project's technical files.

The certification company will be part of a private, multisector entity representative of Dominican business. The technical assistance will suggest the factors that should be considered in selecting the agency that will be responsible for issuing digital certificates (to ensure secure transactions), setting up the certification agencies, promoting EC, encouraging initiatives that help solve cyber-crime, and so on.

transactions and EC consumer privacy by developing the digital certification service that does not currently exist in the Dominican Republic.

- 2.37 **Support for quality certification services.** Second, the project will finance the identification and strengthening of private sector agencies able to offer quality certification services to purveyors of electronic or on-line commerce. The project will help launch the seal of confidence and commercial excellence on the internet (SSC) system to stimulate sustained and trouble-free growth of EC in the Dominican Republic. The primary purpose of the SSC is to inform¹⁷ customers of businesses operating on the Internet about the advantages and protection they will enjoy when they make their transactions digitally. The second purpose will be to certify or reward businesses that abide by the rules and do not abuse the medium. That reward or certification will come from potential quality certification service providers. The program provides an opportunity for promoting and stimulating the use of the Internet and EC in the country, mainly in the market segment that targets the final consumer ("business to consumer" or B2C).
- 2.38 The project funds will be used to assist all businesses concerned with the financing of technical advisory services to identify agencies representative of the private sector that are able to offer EC auditing services; technical advisory services to put together a business plan for the auditing agencies¹⁸ and launch the SSC; technical advisory services to design the applications architecture (software) and the systems architecture (hardware) needed to launch the SSC; and training services for those who will operate the SSC, in the public and private sectors alike; and dissemination of the SSC.

(iii) Academic development

2.39 This subcomponent will support the design and development of a graduate program in e-commerce law. No university in the Dominican Republic has such a program at the present time. In general terms, the program will examine what implications information technology has for the law, in order to give students a clear and practical view of the new digital economy and the emerging IS. EC law endeavors to understand the impact that the new information technology is having on commerce and on legal acts and instruments, and to frame the new transactional forms in the context of the law. The core graduate program being proposed is

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Businesses that receive the "seal of confidence" will be able to display a seal certifying they comply with the basic standards for the conduct of EC, and will thus reap the benefits that accrue from the campaigns to publicize the 'seal of confidence' program.

The detailed terms of reference for this activity are available in the project's technical files.

available in the project's technical files.¹⁹ The project will provide funds for: technical advisory services for the final design of the graduate program in EC law; workshops with professors of law, economics, business administration and other subjects involved in the subject of e-commerce regulation, and other relevant sectors subject to EC regulation, to make it easier to establish the technical parameters of the new graduate program; training for university professors who will teach in the new program; preparation and publication of a basic graduate-level text containing specialized articles and bibliography for each course in the program. The technical criteria that will be used to select the universities participating in the program are included in the project's operating regulations.

Table II-5
Total consolidated budget by component
(in thousands US\$)

(in thousands US) (a)			
Budget category	BANK	Borrower	Total	%
Component 1: Strengthening of policy making and project				
management	559	110	669	11.2%
Subcomponent 1: Creation of a mechanism for consensus-based				
policy making	155	110	265	4.4%
1. Consulting services	155	110	265	4.4%
Subcomponent 2: Strengthening of the UDD's strategic				
management	404	0	404	6.7%
1. Consulting services	212	0	212	3.5%
2. Equipment	86	0	86	1.4%
3. Training	107	0	107	1.8%
Component 2: Start-up of pilot projects	3,375	443	3,818	63.6%
Subcomponent 1: Development of a network of telecenters	2,490	90	2,580	43.0%
1. Consulting services	623	39	662	11.0%
2. Equipment	917	0	917	15.3%
3. Remodeling infrastructure	220	0	0	3.7%
4. Training	730	51	781	13.0%
Subcomponent 2: Dominican Enterprise Portal (PEM)	659	190	849	14.1%
1. Consulting services	335	190	525	8.7%
2. Equipment	282	0	282	4.7%
3. Training	42	0	42	0.7%
Subcomponent 3: Promotion of e-commerce	227	162	389	6.5%
1. Consulting services	134	134	268	4.5%
2. Training	93	28	121	2%
3. General support and services	0	0	0	0.0%
Subtotal	3,934	553	4,487	74.8%

The subjects include: the relationship between computer science and the law; computerized contracts; the legal regime of software; cyber crime; protection of personal data—the privacy of transactions; the legal regime of the Internet; the legal and evidentiary value of electronic documents and digital signatures, implications for banking and tax law, implications for environmental and industrial law, intellectual property; domain names; consumer rights; comparative law—European Union and the United States.

Budget category	BANK	Borrower	Total	%
Program management and administration	822	0	822	13.7%
1. Consulting services	792	0		13.7%
4. Evaluations	30	0	30	0.5%
Unspecified	87	0	87	1.5%
1. Contingencies	47	0	47	0.8%
2. External auditing	40	0	40	0.7%
Subtotal	4,843	553	5,396	89.9%
Borrowing costs	557	48	604	10.1%
1. Interest	503	0	503	8.4%
2. Credit fee	0	48	48	0.8%
3. Inspection and supervision	54	0	54	1.0%
Overall total	5,400	600	6,000	

III. PROGRAM EXECUTION

A. Borrower, guarantor, and executing agency

3.1 The borrower will be the Dominican Republic, which will service the debt. Given the project's objectives, it will be executed by the *Secretariado Técnico de la Presidencia* (STP) through a project execution team (PET). The PET will have the staff for efficient project administration and will be assisted by outside technical consultants with project management. For the duration of project execution, the team will be headed by an outside expert with the title of project general manager. The staff for forming the PET will need to be hired as a condition precedent to the first disbursement.

B. Project execution and administration

- 3.2 The configuration of the PET will be as follows: a general manager and three specialists as project managers, one for technical execution of each of the three pilot projects. These individuals will be selected from the staff of the project executing agencies. In addition there will be two outside specialists, serving in the capacity as project co-managers, to assist the three project managers with the technical aspects of the project, and a outside financial and accounting specialist to assist with the financial aspects of the project. The terms of reference for each PET member are available in the project Operation Regulations.
- 3.3 The project will be executed according to annual work plans (AWP), which must be presented every year by 31 December or such other date as may be decided by mutual agreement between the parties. The AWPs will be agreed upon with the Bank at annual monitoring meetings, as described below. Under the general clauses of the loan contract, the first AWP is to be filed as an integral part of the initial report. The specific criteria and procedures for implementing the project's activities will be part of its operating regulations, approval of which will be a condition precedent to the first disbursement from the loan.
- The following will be the PET's functions: formulate the project's work plan and detailed activities; be responsible for contacts with the Bank; submit loan disbursement requests to the Bank; supervise competitive bidding and contract awards; select and approve the consulting contracts; oversee and control execution and submit progress reports to the Bank; authorize expenditures and other contracting of services; make semiannual innovation evaluations and hold informative meetings with the Bank's Country Office (see paragraph 3.16); oversee fulfillment of the terms of the loan contract and submit project monitoring reports to the Bank, which are to include the project's financial statements, audited by a firm of independent public accountants acceptable to the Bank.

- 3.5 With respect to management of project finances and accounting, the STP, with the help of the PET, will have the functions: (i) manage the project's funds through two separate and specific bank accounts into which loan funds and local counterpart funds will be deposited and from which they will be disbursed; (ii) implement and maintain adequate systems for contract administration, accounting-financial administration, and internal control to manage program resources in accordance with clause 7.01 of the general clauses of the loan contracts; (iii) submit disbursement requests and justify expenditures in keeping with Bank requirements; (iv) keep originals of the documents supporting program-eligible expenditures; (v) submit semiannual reports on the revolving fund within sixty (60) days of the end of each six-month period; and (vi) prepare and file the audited financial reports on the project and other financial reports required by the Bank.
- 3.6 The project General Manager will have the following functions: (i) prepare the annual work plans and the semiannual progress reports on each component, with the project's stakeholders participating closely; (ii) regularly monitor the completion of project- and component-related outputs and timetables, according to the logical framework, timetables and other instruments to evaluate commitments that can be verified from the program's outputs; (iii) serve as the conduit for the PET's communications with the Bank; (iv) coordinate and support efforts to disseminate the program's objectives and accomplishments; (v) establish the technical specifications of the terms of reference of the professional services and equipment to be procured for each component; (vi) achieve the objectives and goals of each component within the allotted time period and with the allotted resources; (vii) oversee compliance with the terms of reference and the outputs of the consulting services; and (viii) submit periodic reports on the project's progress to the STP and the Bank, based on the reports filed by the respective project manager.
- 3.7 The project General Manager will have the following duties in connection with project financial and accounting management: (i) design and maintain a proper system of accounting, internal controls and reporting; (ii) review and approve the disbursements for project-eligible expenditures; (iii) maintain a contract-administration system; (iv) to prepare and submit disbursement requests and the project-related financial reports; and (v) present and ensure compliance with the provisions of the project operating regulations.
- 3.8 The PET has one project manager for each of the three pilot projects. The three project managers will be responsible for technical execution of their projects, will answer to the general manager, and will have co-managers to assist them. The project managers will coordinate closely with the government's line authorities and technical officials, and with the other stakeholder agencies.
- 3.9 The manager of the Telecenters Network pilot project will come from the SECYT (Ministry of Higher Education, Science, and Technology), a body attached to the executive branch with responsibility for developing, regulating, advising, and

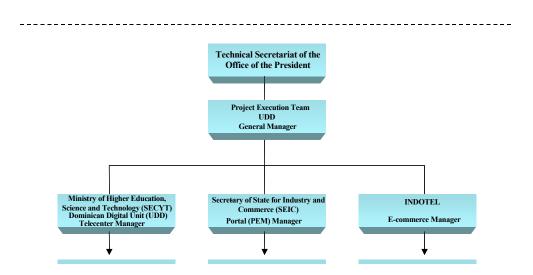
administering the national system of higher education, science, and technology and enforcing all policies issued by the executive branch. The manager responsible for the PEM pilot project will be from the Secretary of State for Industry and Commerce (SEIC), a government body in charge of directing industrial policy, domestic and foreign trade policy, and mining policy. One of its main responsibilities is to foster and program industrial and foreign and domestic trade development. The manager of the e-commerce pilot project will come from INDOTEL, the country's regulatory agency for the telecommunications sector, whose function is to maintain the EC regulatory framework and has the authority to create the mechanisms needed to control and monitor the progress with digital signatures and to audit and control the national certification agencies.²⁰

- 3.10 The functions of the project managers will be as follows: (i) achieve the objectives and goals of their respective pilot projects within the time and resources allotted; (ii) assist with preparation of the annual work plans and the semiannual project progress reports for their respective pilot project; (iii) supervise, coordinate and evaluate the performance of the consultants and/or consulting firms retained to carry out the activities of their respective pilot project; (iv) establish the technical specifications of the goods that need to be acquired and the terms of reference of the professional services that need to be contracted for each pilot project, as agreed upon with the corresponding line authorities; (v) develop systems to consult future internal and external users of the products of each pilot project; (vi) oversee compliance with the terms of reference and results of the consulting services, by agreement with corresponding line authority; and (vii) submit periodic reports on the progress that the respective pilot project has made; and (viii) make recommendations to the STP on any steps that may be needed to rectify problems with project execution promptly with due diligence.
- 3.11 The STP will have ultimate responsibility for the project, with supreme authority in decision-making and responsibility for general project coordination and supervision and oversight of the activities carried out by the companies taking part in each of the pilot projects.

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²⁰ General Telecommunications Act, 153-98s.

Table III-1
Project Execution Plan



C. Procurement of goods and services

3.12 The selection and contracting of consulting services and all procurements planned under the project are to be done according to the relevant Bank policies and procedures. International competitive bidding will be mandatory for procurement of all goods and services valued at US\$250,000 or over. Procurement of goods and contracting of consulting services in lesser amounts will in principle be governed by local law, provided it is compatible with the Bank's policies on the matter. No construction contracts are planned under the project.

D. Accounting and auditing

- 3.13 The PET will keep the project's accounting and financial records separate so that:
 (i) financial transactions done with project funds can be identified, separate and apart from other funds managed by the SECYT, the SEIC, and INDOTEL; and (ii) the project's financial statements can be prepared.
- 3.14 Within 120 days of the end of each year for the duration of the project, the PET will submit to the Bank the project financial statements for the year then ended, audited by an independent firm of external auditors acceptable to the Bank. The costs of the external audit will be covered out of the Bank financing.

E. Execution and disbursement schedules

3.15 The program will have an execution period of thirty months and a disbursement period of three years, plus another six months for the audit and final evaluation.

F. Monitoring and evaluation

- 3.16 The project's activities will unfold according to an annual program implemented through the annual work plans (AWPs), in which each project and component is itemized separately. Every AWP must be agreed upon with the Bank at annual monitoring meetings and, consistent with the program's logical framework, will contain the following information, as a minimum: (i) an evaluation of the activities carried out and the outputs achieved in the immediately preceding period; (ii) an itemization of the activities to be carried out in a given year; (iii) the six-month objectives and goals for each component and the indicators to be used to gauge compliance; (iv) a six-month schedule of execution, with the corresponding costs specified, and (v) the financing needed during the period. The first AWP is available in the project's technical files.
- 3.17 For an objective and effective evaluation during project execution, the first AWP and all those that follow, will include qualitative and quantitative baseline measurements of the principal indicators in the Logical Framework. Valid comparisons can be made using these baseline measurements and, if necessary, corrective measures can be taken. The PET will also do semiannual innovation evaluations reporting what has been learned in the operation's execution and proposing the corrective measures and adjustments needed to facilitate proper fulfillment of the project's objectives. Also planned for the project are a mid-term evaluation, within 15 months of the effective date of the loan contract, and a final evaluation within three months after project completion, to be performed in each case by outside experts. The objective of the mid-term evaluation is to generate knowledge and analysis of the lessons learned during the first half of the project execution period, as an inducement to making the adjustments needed to maximize the chances of success in what remains of the project execution period. The objective of the final evaluation is to gauge the results of the project and its development impact, based on the indicators in the logical framework.
- 3.18 By December 31 of each calendar year for the duration of project execution, the PET will submit the AWP for the following year to the Bank's satisfaction. The PET and the Bank's Country Office, with assistance from headquarters, will hold annual meetings to evaluate the previous year's progress and fulfillment of the criteria established for disbursements and the project's technical execution, and to agree upon the respective annual plans.

IV. VIABILITY AND RISKS

A. The project's institutional and financial sustainability

- 4.1 The design of the project has taken into account the competence and attributes of the executing agencies. All the activities to be carried out are wholly consistent with the functions that the various offices that comprise the EEP are called upon to perform. The scope and substance of the project's activities were designed in close consultation with the officials who will be monitoring project execution in their respective offices, which were found to have the capacity to steer and track execution of the operation. The conditions necessary to guarantee the project's acceptance and implementation are, therefore, present.
- 4.2 The foregoing notwithstanding, the project features specific institution-building activities for the CNSI, the SECYT, and UDD, which will play a pivotal role in project execution. The view is that building up the managerial, technical, administrative and technological capacity of these two institutions will be advantageous for purposes of successful execution of the operation. For project execution, the PET will bring in an international consulting firm with extensive administrative and technical experience in operations of this type. It will act as a comanager, to ensure the maximum in efficiency and operational coordination. The co-managing firm is another positive factor for developing the government's institutional capacity in the ICT sector. Under the project's plan, that firm will be training government ICT personnel, will impart to the government the best practices in ICT-related project execution, and will pass along specialized ICT know-how. Its presence will induce a number of positive learning effects by triggering a process known as "learning-by-doing."
- 4.3 The project's financial sustainability has been evaluated; on the one hand, by examining the STP's capacity to obtain the counterpart funding needed to execute the operation. The STP appropriations in this budget and for the next three years (2003-2006) will add more resources with which to make its counterpart contribution, which is US\$600,000 for the project-execution period.
- 4.4 Furthermore, the evaluation of the project's financial viability took into account the active participation of economic and social agents from the Dominican private sector or civil society. Their participation will give an added boost to the project's continuity and carry it beyond the period of execution. Examples of this dynamic are the multi-institutional configuration of the CNSI, in which the private sector and civil society are represented; the pilot project on the telecenter network, designed so that the telecenters will be run by private sector or civil society organizations as sustainable, for-profit ventures; and the PEM and EC pilot projects, which are so clearly private-sector oriented, creating special incentives to stimulate demand and participation among businesses.

B. Publicizing the project's implications during project preparation to lay the groundwork for sustainability

- 4.5 While the project was being put together, a series of measures were carried out that served to stimulate a sense of ownership, pass along technical know-how to executing agencies, and make Dominican civil society and its private sector aware of what the project could mean for them. This combination of measures was made possible in large part thanks to non-reimbursable technical cooperation with funds from the Government of Japan (TC-02-01-10-9) and approved to enable preparation of this operation.
- 4.6 First, with the Bank's technical support the National Committee for the Information Society (CNSI) was created while this project was still in its design phase. The CNSI makes policy and guidelines for the information society (IS). It is multiinstitutional in its configuration, with members from the public sector, the private sector, the academic world, and civil society in the Dominican Republic. The CNSI is wholly operational and holds meetings regularly. The Dominican Digital Unit (UDD) was also created during the project's design phase and replaced the National Informatics Committee. The UDD plays an executive role within the sectors that make up the IS. The Bank provided technical assistance when the UDD was being created and when the UDD web site (www.dominicanadigital.gov.do) was launched. The latter was established as an open electronic channel to publicize and participate in projects and initiatives in the sector. The members of the UDD have taken a number of courses in the administration of Bank lending operations. organized and coordinated by the Bank's Country Office in the Dominican Republic.
- 4.7 Second, the technical consulting services that supported the project's preparation used focus groups or workshops with businesses and civil society organizations in the Dominican Republic, where the demand was examined. That way, the project's potential direct beneficiaries had a hand in identifying what the needs were and in planning concrete measures. The telecenters network in particular was designed with the support of one of the creators and managers of the *Red Científica Peruana*, a successful model of telecenters' sustainability at the regional and global level.
- 4.8 Third, while the operation was being prepared, the project team organized an activity to publicize the project's activities, targeted mainly at civil society and the private sector in the Dominican Republic. The activity featured, among other things, a presentation by the project team²¹ and an open discussion with participants. The latter elicited ideas that were very valuable to preparation of this project report.

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The presentation is available in the project's technical files.

C. Environmental and social impact

4.9 The program is not expected to have any direct environmental or social impact. Nevertheless, the public's improved access to ICT, the availability of electronic information and filing services for businesses, and the introduction of incentives to grow e-commerce are all variables with a positive social impact, inasmuch as greater use of the new technologies for communication, information and commerce will spur economic growth and generate value-added jobs. The Committee on Environment and Social Impact approved the Innovation Profile, without making any recommendations.

D. Benefits

- 4.10 First, by putting resources into building up the policy-making (CNSI) and project-execution (SECYT and UDD) institutions in the ICT sector, the project will improve the functioning of the country's public sector. Specifically, the project will be instrumental in establishing the institutional, regulatory and organizational conditions that will in turn make it possible to create a body enabling on-going consultation within the public sector, and between the latter and the private sector and civil society, with a view to mapping out consensus-based policies and strategies for the sector. This open and inclusive umbrella mechanism will get the best return from efforts and resources and also avoid duplication. The project also proposes to build up specific institutional and organizational capacities in order to strengthen project management within the public sector so that the strategies can translate into feasible projects that can produce concrete and tangible results.
- 4.11 Second, the pilot projects will introduce the proper incentives to get the Dominican public and business community to make greater use of ICT. Measures are also planned to get the Dominican private sector and civil society actively engaged in the execution of the pilot projects. In the medium and long term, more and better use of ICT in public management, commerce and in developing new projects by Dominican civil society and its private sector will serve as an incentive to stimulate economic and commercial activity, particularly trade and economic investment.

E. Risks

4.12 The success of the project will in large part depend on the right partnership among agencies within the public sector, and between the public sector and the private sector and civil society in the ICT sector. The mechanisms that the project proposes are a novel venture, since as of now the private sector and civil society are not much of a presence in ICT policy-making and project-execution. The sustainability of the telecenters pilot project will largely hinge on the right technical selection of the businesses or civil society organizations that will run those telecenters. Then, too, the success of the pilot projects will also depend upon whether the promotional drive is successful at triggering a demand for the proposed new services. The

project plans to mitigate these risks through the following measures: first, by creating the CNSI, a permanent mechanism enabling public sector institutions to coordinate with each other and with the private sector and civil society; second, by using very specific technical eligibility criteria for the project's main decision-making processes and spelled out in the project's operating regulations, particularly the criteria for the merit-based competition for management of the telecenters; and third, by creating and introducing open and transparent mechanisms for communicating with and disseminating information to civil society and the private sector.

4.13 Because the telecenter concept is such a novel one, the demand for ICT-related services may not immediately materialize. Nevertheless, the competitive and productive benefits that Dominican businesses and people stand to gain from using ICT are factors that should stimulate the demand for services. Similarly, the large numbers of Dominicans living abroad, the demand for ICT services in the tourism sector (from tourists and tourism businesses alike) and the competitiveness of the telecommunications and Internet-service providers in the Dominican Republic, are keys to stimulating the demand for the new services offered. Even if the latent demand fails to materialize immediately, the other, more traditional revenue streams (telephony, printing, photocopying, binding, etc.) planned under the project will draw both individuals and businesses to the telecenters, where they can then familiarize themselves with the more novel services. Additional demand will be stimulated by means of the free training and guidance activities for the public in ICT use.

INSTITUTION BUILDING FOR THE INFORMATION SOCIETY LOGICAL FRAMEWORK

Narrative Summary	Indicators	Means of Verification	Assumptions
GOAL			
Help create, in Dominican society, the development opportunities that information and communications technology (ICT) afford.		Final evaluation report prepared by a group of experts confirms improvement in the figures on ICT use in the Dominican Republic, in access and connectivity (AC), e-government (EG) and e-commerce (EC).	Development of the information society in the Dominican Republic remains a State priority.
PURPOSE			<u> </u>
Develop an institutional capacity that partners government, the private sector, civil society and the academic community in policy making and project management, thereby promoting and increasing ICT use in the Dominican Republic.	By project's end, the Dominican Republic has the institutional capacity to meet the demand for ICT use.	Annual progress report submitted by the project's general manager and supported by the record of the meetings of the Dominican Digital Unit (UDD) and the National Committee for the Information Society (CNSI).	The public sector, private sector, civil society and academic community continue to participate in ICT development in the Dominican Republic and stimulate other agents to become involved in the sector.
The institutional bodies created and/or strengthened execute 3 pilot projects (telecenters or TCs, the Dominican Enterprise Portal or PEM, and ecommerce or EC).		Six-monthly progress reports from the project managers, supported by the records of the inter-institutional coordination meetings. INDOTEL's national statistics and statistics on the use of ICT.	In their respective realms, the public and private institutions involved in the project work actively to disseminate and promote adequate use of ICT in the Dominican Republic.
COMPONENTS		01101.	
Stronger and more functional ICT policy-making and project management	Higher standard of policy-making and project management.	Annual progress report from the project's general manager, prepared and agreed upon with the Bank.	The public sector, private sector and civil society remain pro-actively involved in the CNSI.
1.1 The CNSI is strengthened.	Greater involvement of the government, the private sector, civil society and the academic community in the ITC sector and more ITC proposals presented.	Dominican Digital Agenda prepared and agreed upon. Learning activities publicized.	The technical caliber and stability of e-government unit staff remains intact
1.2 The UDD is strengthened.	Greater coordination and execution of ITC initiatives and projects.	UDD Strategic Plan and Annual Operating Plans prepared and agreed upon, by consensus.	
Start-up of the TC, PEM and EC pilot projects. TC network is up and operating. Dominican Enterprise Portal in operation The EC regulatory, institutional and academic framework is implemented.	A 10% increase in the Internet penetration rate (from 80,000 to 88,000 by INDOTEL count). An increase confirmed in businesses' access to and use of ICT. A regulatory framework for e-commerce approved and institutional capacity installed.	Annual progress report from the project's general manager prepared and agreed upon with the Bank. TCs' accounting statistics: records on users of services offered. Statistics on PEM use (number of visits) and of transactions done on-line. Increase in the number of certified and audited businesses; EC legal framework in force; and EC academic program established.	The CNSI supports the TC, PEM and EC projects and cooperates to ensure that project needs are met promptly and effectively.
ACTIVITIES			
Subcomponent I: Creation of a mechanism for conse 1.1.1 An international consulting firm is contracted to prepare the Dominican Digital Agenda.	 Framework document for ICT activity in access and connectivity and e-government, prepared during the first six months of the program execution period (PEP). 	Annual progress report from the project's general manager confirming that the activity was carried out.	
1.1.2 A consulting firm is contracted to launch the CNSI advisory committees.	 Meetings held and recommendations made by the advisory committees in the areas of access, EC and EG, for every six-month period of the PEP. 	Six-month report from the project manager confirming that the activity was carried out. Minutes of the advisory committees' meetings.	
Technical advisory services are retained to conduct activities to generate knowledge and know-how.	 No. of workshops held/year No. of seminars held/year No. of courses given/year 	Record of participants in the activities.	

	Narrative Summary	Indicators	Means of Verification	Assumptions			
Subco	bomponent II: Strengthening of UDD strategic management						
1.2.1	International technical advisory services are retained to prepare the UDD's strategic and operating plans.	Strategic plan devised during the first six months of the PEP annual operating plan/year.	Annual progress report from the project's general manager confirming that the activity was carried out. Six-month report from the project manager confirming that the activity was carried out.				
1.2.2	International technical advisory services are retained to design a system of management and impact indicators.	 Software for management indicators prepared and in operation by the end of the first year of the PEP. 	Annual progress report from the project's general manager confirming that the activity was carried out				
1.2.3	International instructors are contracted from amongst UDD staff and from staff of other government agencies, in the areas of access, EC and EG.	Number of courses and seminars held/year Number of CD-ROMs published and circulated/year	Annual progress report from the project's general manager confirming that the activity was carried out.				
1.2.4	The services of an international technical advisory firm are retained to prepare the plan to promote ICT opportunities in the DR.	Minutes of radio airtime purchased/ year Space taken out in the print media/year Banners on web pages contracted/year Printed material/year Number of CD ROMs published and circulated/year	Annual progress report from the project's general manager confirming that the activity was carried out.				
1.2.5	Data processing equipment and furnishings for the UDD are procured.	No. of PCs Servers Software licenses Telephone service facilities Printer/Fax Photocopy machine Scanner Furnishings (end of the first six months of the PEP)	Six-month report from the project's manager confirming that the activity was carried out.				
Subco	mponent I: Development of a TC network						
2.1.1	Premises are selected, remodeled and outfitted.	6 TCs remodeled, equipped and operating in PEP's first year. 8 TCs remodeled, equipped and operating by the PEP's second year. 6 TCs remodeled, equipped and operating the PEP's second year. No. of PCs Servers Software licenses Telephone facility Printer/fax/photocopier Furnishings Internet connection	Six-monthly progress report from the manager of the TC project confirming that the activity was carried out. Annual progress report from the project's general manager confirming that the activity was carried out				
2.1.2	Training services and modalities are contracted for users of the network of TCs.	Number of training activities conducted each quarter, for each TC Number of training activities conducted by NodoTic in PEP's second year	Quarterly progress report from the manager of the TC project confirming that the activity was carried out. Six-monthly progress report from the manager of the TC project confirming that the activity was carried out.				

	Narrative Summary	Indicators	Means of Verification	Assumptions
2.1.3	Measures to promote TCs are launched.	Number of courses held by TCs to publicize services/year. Number of introductory courses conducted by the TCs on the use of the Internet and ICT/year. Number of informal discussion groups with TC experts/year Number of radio spots/year Number of articles in the print media/year Number of electronic banners/year Number of newsletters written and circulated/year.	Six-monthly progress report from the manager of the TC project confirming that the activity was carried out.	
2.1.4	A consultant is contracted to design a content-generation manual	Manual prepared and available on the Internet in the PEP's first year Number of manuals distributed/year Number of free courses delivered/year	Annual progress report from the project's general manager confirming that the activity was carried out. Six-monthly progress report from the manager of the TC project confirming that the activity was carried out.	
2.1.5	Technical advisory services are retained to support local content-development initiatives: Desarrolla tu Ide@ en la Alde@ Program	Content-related initiatives chosen by the CNSI/year Plans of action to implement the content devised/year Content-related initiatives chosen by the CNSI/year Relation to implement the content devised/year	Annual progress report from the project's general manager confirming that the activity was carried out. Six-monthly progress report from the manager of the TC project confirming that the activity was carried out.	
2.1.6	International instructors are contracted to provide training in each of the following three areas: TC management; technical administration of TCs; and content management.	 Number of courses held, by topic area/year Number of attendants per course/year. 	Six-monthly progress report from the manager of the TC project confirming that the activity was carried out. Quarterly progress report from the manager of the TC project confirming that the activity was carried out.	
	nponent II: Dominican Enterprise Portal (PE	M)		
2.2.1	International consulting firms are contracted to determine the content and services, and for technological development; necessary HW and SW and network equipment is procured, as are office furnishings.	PEM designed in the PEP's first year. Number computers acquired in the PEP's first year. Number of servers acquired in the PEP's first year. Number of licenses acquired in the PEP's first year. Number and specification of furnishing elements acquired in the PEP's first year.	Six-monthly progress report from the PEM project manager.	
2.2.2	A campaign is launched to promote the PEM internally and externally.	Number of inter-institutional presentations made/year Print material published and distributed for internal promotion/year Number of external presentations held to launch PEM/year Number of announcements that appear in the mass media/year Number of PEM presentations (50 strategic centers)/year Number of CD ROMS circulated/year (PEP's first year)	Quarterly progress report from the PEM project manager. Six-monthly progress report from the PEM project manager.	

	Narrative Summary	Indicators	Means of Verification	Assumptions
2.2.3	International consulting firms are contracted for EGP training on such topics as e-government, management of Internet portals, content management, and portal administration and technical support.	Number of courses held per topic area/year. Number of persons in attendance at each course/year. (PEP's first year)	Quarterly progress report from the PEM project manager. Six-monthly progress report from the PEM project manager	
PEM co	onsolidation			
2.2.4	A law firm is retained to develop proposed initiatives to promote and serve as an incentive for use of the PEM.	 Number of proposals devised and implemented per year, in the PEP's second year. 	PEM project manager's quarterly progress report. Annual progress report from the PEM general manager.	
2.2.5	Campaigns are launched promoting the use of the PEM.	Links to the PEM from search engines contracted and used/year Number of radio slots aired/year Number of articles in the print media/ year Number of electronic banners contracted/ year. Number of factsheets, posters and triptych done and put into circulation each year Number of promotional CD-ROMs produced and put in circulation each year Number of internal PEM-promotional events done each year (PEP's second year)		
2.2.6	An international consulting firm is contracted to update software and hardware.	Hardware and software updated and functioning. (PEP's second year)	Six-monthly progress report from the PEM project manager General manager's annual progress report	
PEM ex	rpansion			
2.2.7	An international consulting firm is contracted for design and technological development of vertical channels. A local consulting firm is contracted to develop vertical channel content.	Number of vertical channels, with content decided and developed, and operating per year, in the PEP's third year.	PEM project manager's six-monthly progress report. Annual progress report from the general manager.	
2.2.8	A local law firm is retained to draft proposed initiatives that will promote and induce the use of the advanced version of the PEM.	 Number of proposed initiatives drafted and implemented per year, in the PEP's third year. 	Six-monthly progress report from the PEM project manager Annual progress report from the PEM general manager.	
2.2.9	A local consulting firm is contracted to reengineer inter-institutional coordination mechanisms.	 Reformulated institutional coordination mechanisms functioning per year, in the PEP's third year. 	Annual progress report from the PEM general manager.	
2.2.10	An external promotional campaign is conducted for the expanded version of the PEM.	Number of presentations done outside the public sector each year to launch the expanded version of the PEM/year Number of attendants at the presentations/year Number of articles published in the specialized and print media/year Number of factsheets, posters and triptych prepared and published each year. (PEP's third year)	Six-monthly progress report from the PEM project manager Annual progress report from the PEM general manager.	

	Narrative Summary	Indicators	Means of Verification	Assumptions
Subco	mponent III: Promotion of e-commerce		1	
2.3.1	An international consultant is contracted to devise and draft standards on privacy and data protection, consumers' rights and regulations governing the EC act.	 Technical reports containing proposed regulations on privacy and data protection, consumers' rights and regulations governing the EC act, in the PEP's first year. Focus groups and consultations held on proposed regulations/year. 	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.2	An international consulting firm is contracted to draw up certification services' business plans.	 Technical reports on certification business plans prepared in the PEP's first year. 	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.3	An international consulting firm is contracted for technological design of certification services.	Technical proposals for the technological architecture of the certification services prepared in the PEP's first year.	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.4	A local firm is hired to design and launch 3 web sites for potential certifying agencies.	 web sites designed and launched in the PEP's second year. 	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.5	A local firm is contracted to conduct campaigns advertising new certification services.	Number of articles in the print media/year Number of TV spots/year Number of electronic banners/year Number of newsletters written and circulated/year. (PEP's second year)	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.6	An international consultant is contracted to prepare the certification courses.	Number of courses given/year (PEP's second year)	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.7	An international consulting firm is contracted to draw up the business plans for the auditing services.	Technical reports of auditing business plans drawn up in the PEP's first year.	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.8	An international consulting firm is contracted to design the technological architecture of the auditing services.	 Technical proposals for technological design of the auditing services prepared in the PEP's first year. 	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.9	A local firm is contracted to design and launch 3 web sites for the "Seal of Confidence" Program.	 web sites designed and launched in the PEP's second year. 	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
	A local firm is contracted to conduct campaigns to publicize the new auditing services.	 Number of articles in the printed press/year Number of slots on TV/year Number of electronic banners/year Number of newsletters written and published (PEP's second year) 	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.11	An international instructor is contracted to put together the auditing courses.	Number of courses given/year (PEP's second year)	Six-monthly progress report from the E-Commerce project's manager confirming that the activity was carried out	
2.3.12	An international consultant is contracted to design the graduate program in EC law and to conduct technical workshops.	Technical design of the graduate program in the first year of the PEP Number of technical workshops conducted/year, as of the PEP's second year	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	

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Narrative Summary	Indicators	Means of Verification	Assumptions
2.3.13 An international instructor is contracted to design and put together a basic instruction manual in EC law.	Basic instruction manual in EC law, prepared in the PEP's second year.	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out.	
2.3.14 An international instructor is contracted to deliver courses in EC law to local instructors.	Number of courses/year in the PEP's 2nd year.	Six-monthly progress report from the e-commerce project manager confirming that the activity was carried out	

PROCUREMENT PLAN INSTITUTION BUILDING FOR THE INFORMATION SOCIETY DR-0149

Creation and start-up of Advisory Committees Generation of knowledge and know-how Subcomponent 2: Strengthening of the UDD's strategic management UDD's strategic plan and annual operating plans Besign of an integrated information system for the sector Technical training of staff (UDD and other government institutions) Promotional mechanism design and implementation Equipment for UDD COMPONENT 2: START-UP OF PILOT PROJECTS Subcomponent 1: Development of a network of telecenters Remodeling work Equipment Promotion of telecenter users Content generation Training, telecenter coordinators Subcomponent 2: Dominican Enterprise Portal (PEM) Functional and technological design Equipment 247	000 400 750 000	International consulting Local consulting Equipment	ICP ICP ICP ICP ICP ICP	II/2003 II/2003 II/2003 to II/2005 II/2003 to II/2004 I/2004 II/2003 to II/2005		
Formulation of the Dominican Digital Agenda 45 Creation and start-up of Advisory Committees 74 Generation of knowledge and know-how 145 Subcomponent 2: Strengthening of the UDD's strategic management UDD's strategic plan and annual operating plans 84 Design of an integrated information system for the sector 41 Technical training of staff (UDD and other government institutions) 107 Promotional mechanism design and implementation 86 Equipment for UDD 85 COMPONENT 2: START-UP OF PILOT PROJECTS Subcomponent 1: Development of a network of telecenters Remodeling work 220 Equipment 917 Training, telecenter users 612 Promotion of telecenters 320 Content generation 392 Training, telecenter coordinators 118 Subcomponent 2: Dominican Enterprise Portal (PEM) Functional and technological design 253 Equipment 247	750 000 000 000 500	International consulting International consulting International consulting International consulting International consulting Local consulting	ICP ICP ICP ICP	II/2003 II/2003 to II/2005 II/2003 to II/2004 I/2004		
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· ·	100	International consulting	ICB	II/2003 to II/2005		
Internal and external grant of the DEM	000	Equipment	PB	II/2003 to II/2005		
Internal and external promotion of the PEM 68	000	Local consulting	ICP & LCP	II/2003 to II/2004		
Training, PEM management team (EGP) 42	000	International consulting	ICP & LCP	II/2003 to II/2005		
PEM promotion 97	500	Local consulting	ICP & LCP	II/2004 to II/2005		
PEM maintenance and support 59	000	International consulting	ICP & LCP	II/2004 to II/2005		
Development and launch of vertical channels 40,	000	International consulting	ICP & LCP	II/2004 to II/2006		
External promotion 55	000	Local consulting	ICP & LCP	II/2004 to II/2006		
Subcomponent 3: E-commerce promotion						
Design and preparation of standards 61	000	International consulting	ICP	II/2003 to II/2005		
Dissemination 34.	000	Local consulting	ICP & LCP	II/2003 to II/2005		
Institution building: certification services 118.	250	International consulting	ICP	II/2003 to II/2006		
Institution building: auditing services 116	000	International consulting	ICP	II/2003 to II/2006		
Academic development 104		International consulting	ICP	II/2003 to II/2006		
·	000	International consulting	ICP	II/2003 to II/2006		
PROJECT EXECUTION 792		International consulting	ICB	II/2003 to II/2006		

ICB= International Competitive Bidding LCB= Local Competitive Bidding

ICP = International call for proposals or CVs LCP= Local call for proposals or CVs

PB= Private Bidding LS= Local Shopping